NORTH AMERICAN DRÄGER

PRODUCT BULLETIN

Product(s):	Narkomed 2C, Narkomed 4, Narkomed 2B
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Subject: Fluid Management System

The long awaited arrival for an effective solution to the management of intravenous anesthesia is here. Effective immediately, the component parts that make up our Fluid Management product are available for sale and shipment.

Why Fluid Management?
The importance, acceptance, and use of intravenous anesthesia as a complementary technique to inhalation anesthesia is steadily increasing. Recognizing this fact, we have brought the two systems together to coexist as part of the anesthesia workstation's extensive capabilities through system integration with the Baxter infusion pump product line. Their currently available product, AS40A infusion pump, and their next generation, AS50A when it becomes available (pending 510(k) approval), will both integrate into the system. Baxter is the current leader in the OR infusion pump marketplace; however, we are also investigating pumps of other manufacturers for future integration.

System Components
There are three major components that comprise the NAD portion of the Fluid Management system: COMHUB, cradle, and mount. the COMHUB provides the electrical and communications link from the anesthesia machine to the infusion pump. Currently, with the AS40A model, the electrical supply from the COMHUB is used during pump operation and to recharge the pump's internal battery. When the AS50A model becomes available, data from the pumps pertaining to the dose, flow, rate, and totals will be archived in the O.R. Data Manager's electronic record. User will also be notified of pump status and error conditions on the Central Display. This is in addition to recharging the internal battery of the AS50A as well.

The cradle and mount are basically two "docking" halves of the same assembly. The cradle is affixed to the pump itself, while the mount is permanently attached to the Remote Display Arm on the anesthesia machine. There is also a remote version

available that allows additional mounts to be attached to an independent stand. With the addition of this option, the total number of infusion pumps is raised from 3 to 6.

Infusion Pumps

Currently, we are working in concert with Baxter regarding demo pump availability, existing customer list, and the coordination of demos and sale of the AS40As. Baxter has agreed to help us with the inventory of AS40As we will need in order to install and demo the entire system. Also, if you notify the appropriate Baxter representative (a list will be forthcoming), they will supply the IV administration kits for use during the trial, and the expertise required on the pump, if the customer is not a current user. At this time the AS40A must be purchased directly from Baxter. If you have a special situation, or require assistance in "packaging" an order, please contact your Regional Sales Manager.

FLUID MANAGEMENT SYSTEM ILLUSTRATIONS

Figure 1 illustrates both mounting options of the infusion pumps: the display arm mount and the remote stand. In Figure 2 the standard "2 position local" mounting arrangement is depicted.

FIGURE 1

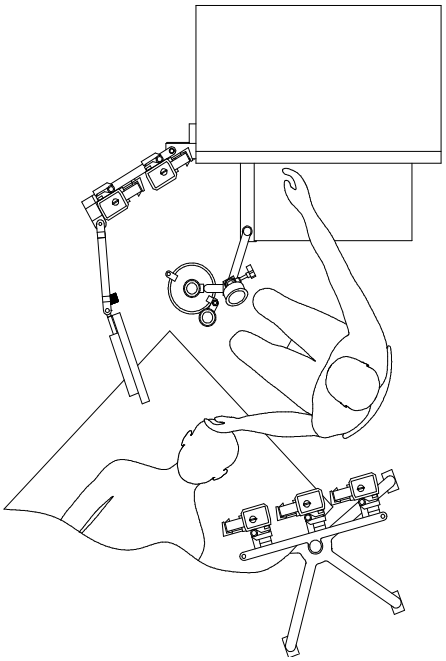
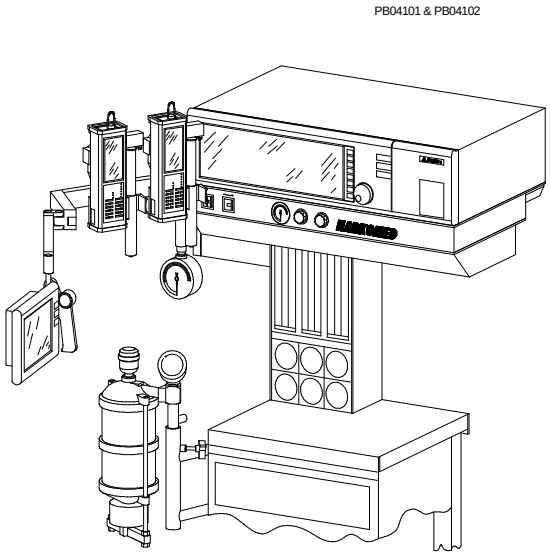


FIGURE 2



FEATURES	BENEFITS
* Pumps are mounted on the Remote Display Arm	* Pumps are always within the clinician's reach and in the line of sight for easy reference * Infusion pumps are always where they should be and less likely to wander out of the O.R. * Installation on the arm of the anesthesia machine is much more stable, and not as likely to be knocked over and damaged as an IV pole mounting arrangement.
* Cradle is molded to "dock" with the mount on the anesthesia machine and remains attached to the pump	* Design facilitates one-handed installation and removal of pumps * Cradle is adaptable to original Baxter pole mount also.
* Electrical and communication connections are built into the cradle and mount	* Pump's internal battery is always being charged when in place; no more dead batteries during a procedure * With AS50A data will be auto-matically archived in the ORDM via the communication connection in the mount. Data pertaining to dose, flow, rate and totals. Also, pump alarm and status messages are centralized.
* Remote mounting option on an inde-pendent stand	* Allows the system's pump capacity to be increased to a total of 6 pumps

ORDERING INSTRUCTIONS

To place an order for a Fluid Management System you must first determine how many pumps are going to be required. This will determine how many position mounts and cradles are needed. The first three mounting positions will be referred to as local. The next three, if required, will be referred to as remote. All machines will require a COMHUB for fluid management. The model of COMHUB is determined by the number of pumps also. See the matrix below for Product Numbers and List Prices. (NOTE:

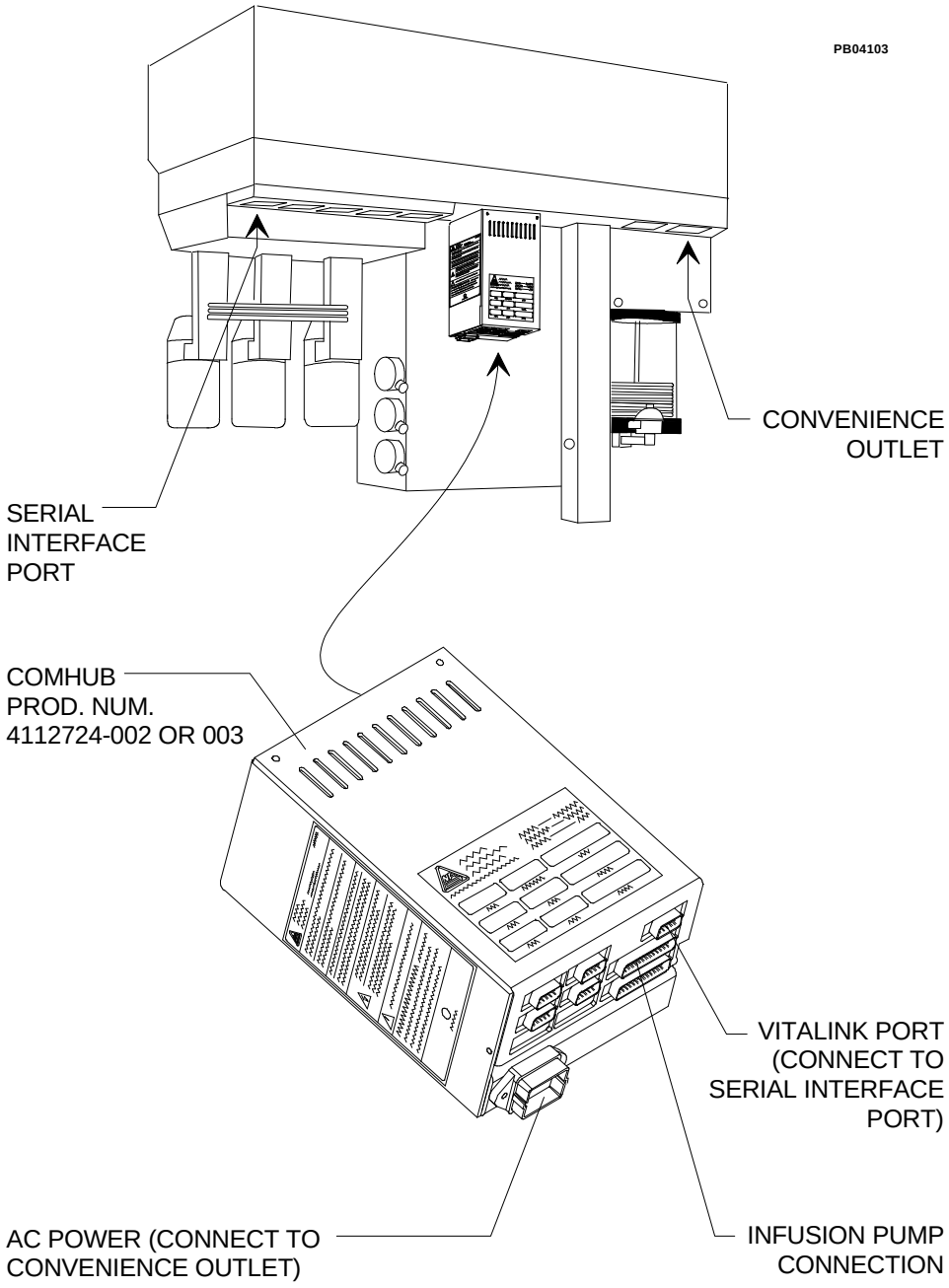
Non-articulating display arms found on early NM4s must be upgraded. Contact Technical Service for upgrade information regarding parts, prices, etc.)

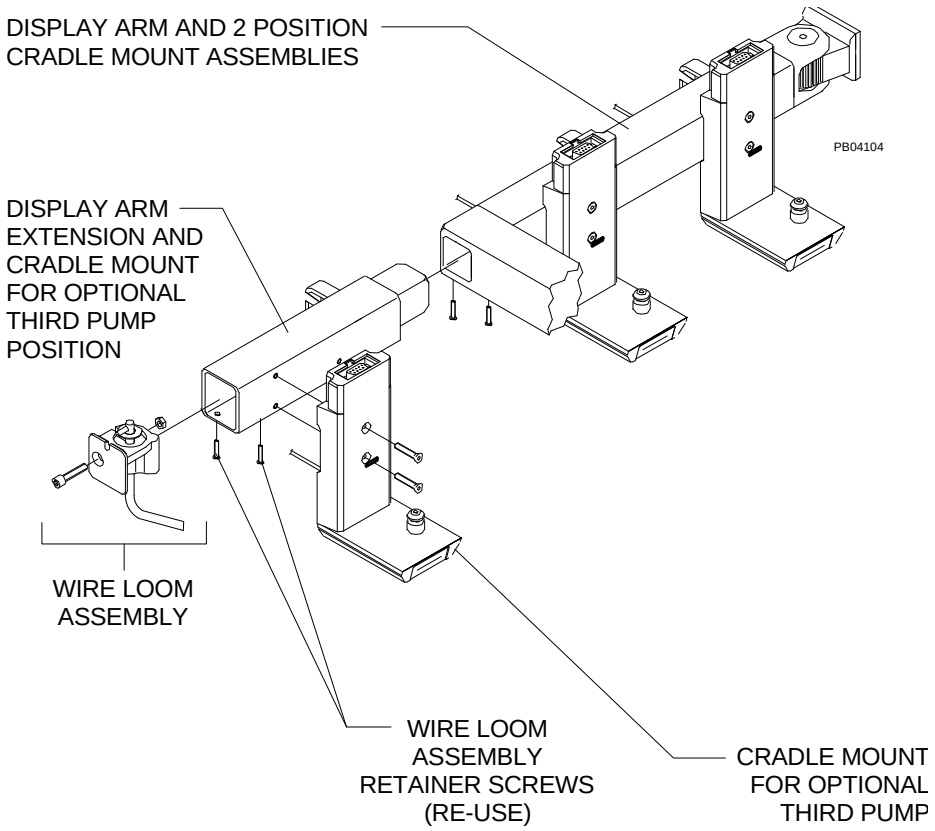
DESCRIPTION	PROD NUM.	LIST PRICE
Narkomed 4, 2C and 2B w/ ORDM		
(1) COMHUB (1 to 3 pumps)	4112724-002	$1,495.00
(2) COMHUB (4 to 6 pumps)	4112724-003	3,685.00
(3) F.M. Mounts- 2 position; local	4112990-001	445.00
(4) F.M. Mount- 3rd position; local	4112990-002	285.00
(5) F.M. Mounts- 3 position; remote**	4112990-003	1,150.00
(6) Cradle Assembly	4112763	250.00
Narkomed 2B w/o ORDM		
(7) F.M. Mounts- 3 position; local (Includes support arm)	4112990-004	1,295.00

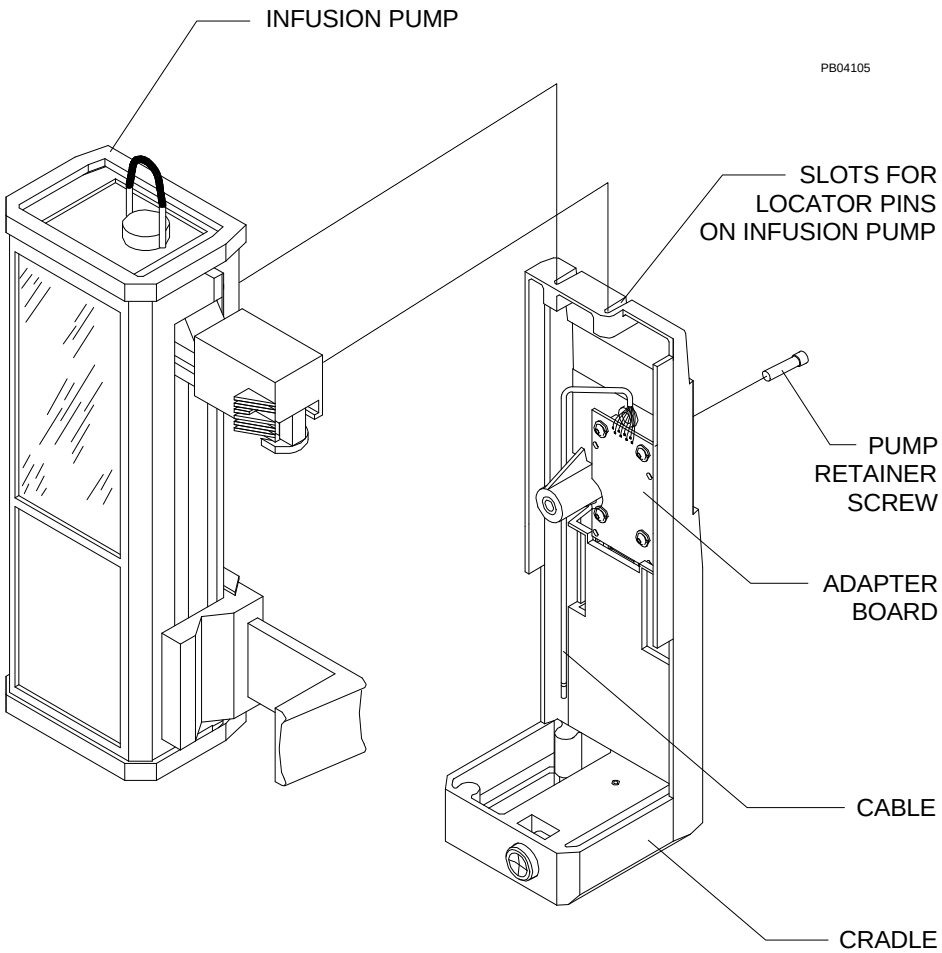
** Any remote installation requires COMHUB # 4112724-003 even if there are only 3 pumps involved.

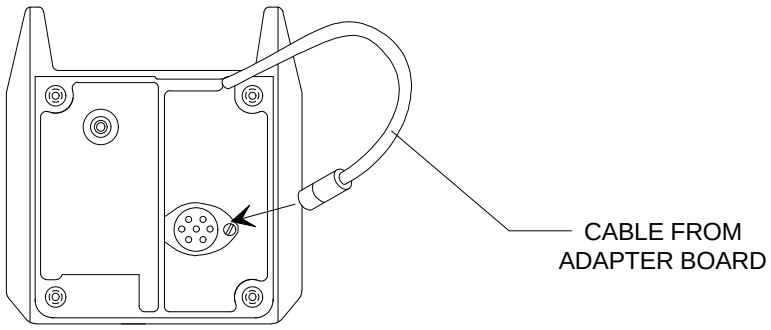
Attached are additional illustrations to help you visualize the system components. If you have any questions regarding this Product Bulletin, or Fluid Management, please contact Jim Wetzel, ext. #2325.

REAR VIEW OF NARKOMED 4

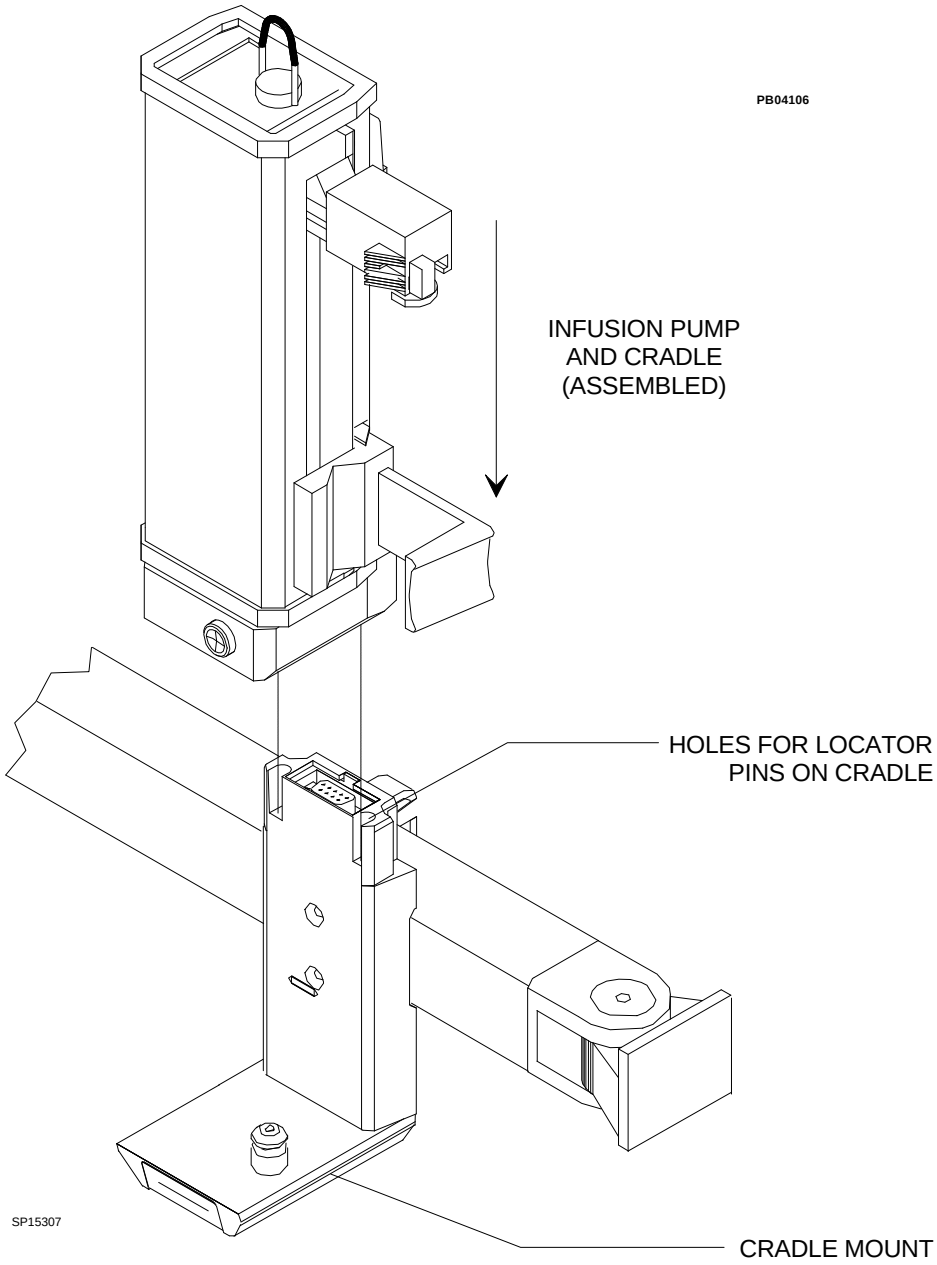

PB04103
CONVENIENCE OUTLET
SERIAL INTERFACE PORT
COMHUB PROD. NUM. 4112724-002 OR 003
VITALINK PORT (CONNECT TO SERIAL INTERFACE PORT)
AC POWER (CONNECT TO CONVENIENCE OUTLET)
INFUSION PUMP CONNECTION


DISPLAY ARM AND 2 POSITION CRADLE MOUNT ASSEMBLIES
PB04104
DISPLAY ARM EXTENSION AND CRADLE MOUNT FOR OPTIONAL THIRD PUMP POSITION
WIRE LOOM ASSEMBLY
WIRE LOOM ASSEMBLY RETAINER SCREWS (RE-USE)
CRADLE MOUNT FOR OPTIONAL THIRD PUMP





BOTTOM VIEW OF
CRADLE AND PUMP


PB04106
INFUSION PUMP
AND CRADLE
(ASSEMBLED)
HOLES FOR LOCATOR
PINS ON CRADLE
SP15307
CRADLE MOUNT